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ted States Department of Agriculture

Soil Conservation Service

Casper, Wyoming



Wyoming Water Supply Outlook May 1, 1985

25 42745



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FOREWORD

HOW FORECASTS ARE MADE

Most of the annual streamflow in the Western United States originates as snowfall. This snowfall accumulates high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture, and antecedent streamflow data are viewed in conjunction with snowpack data to prepare runoff forecasts. This report presents a comprehensive picture of water supply outlook conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Streamflow forecasts are cooperatively generated by Soil Conservation Service and National Weather Service hydrologists. Forecasts become more accurate as more data affecting runoff becomes known. For this reason forecasts are issued that reflect three future precipitation conditions - Below Normal. Average, and Above Normal. These forecasts are termed reasonable minimum, most probable, and reasonable maximum. Actual streamflow can be expected to fall between the lower and upper forecast values eight out of ten years.

Snowpack data are obtained by using a combination of manual and automated measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation, temperature, and other parameters are monitored on a daily basis and transmitted via radio telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

FOR MORE INFORMATION

Copies of Monthly Water Supply Outlock Reports and other reports may be obtained from the states listed below. Because of the limited space, snow survey measurements are not published in monthly reports. An annual snow survey data summary is published by the Soil Conservation Service for each of the western states. Historical snow survey data may be obtained at those same offices.

STATE	<u>ADDRESS</u>
Alaska	Room 129,2221 East Northern Lights Blvd., Anchorage AK 99504
Arizona	Room 3008, Federal Bldg., 230 North First Ave., Phoenix AZ 85025
Colorado (New Mexico	2490 West 26th Ave.,Denver CO 80211)
Idaho	304 North 8th Street,Room 443,Boise ID 83702
Montana	10 East Babcock, Room 443, Federal Building, Bozeman MT 59715
Nevada	50 South Virginia Street, Third Floor, Reno NV 89505
0regon	1220 Southwest 3rd Ave.,16th Floor,Portland OR 97204
Utah	4418 Federal Bldg.,125 South State St.,Salt Lake City UT 84147
Washington	360 U.S. Court House, Spokane WA 99201
Wyoming	Federal Bldg.,Room 3124,100 East 'B' St.,Casper WY 82601

In addition to state reports, a Water Supply Outlook Report for the Western United States is published by the Soil Conservation Service and National Weather Service monthly, January through May. Reports may be obtained from the Soil Conservation Service, West National Technical Center, 511 Northwest Broadway, Room 514, Portland, OR 97209.

Published by other agencies:

Water Supply Outlook Reports prepared by other agencies include - Snow Survey Branch, California Department of Water Resources, P.O. Box 388, Sacramento, CA 95802; British Columbia - The Ministry of Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia, V8V 1X5; Yukon Territory - Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory, Y1A 3V1, Alberta, Saskatchewan, and N.W.T. - The Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta, T3C 1A6.

Wyoming Water Supply Outlook

AND

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued by

Peter C. Myers Chief Soil Conservation Service Washington, D.C.

Released by

Frank S. Dickson State Conservationist Soil Conservation Service Casper, Wyoming

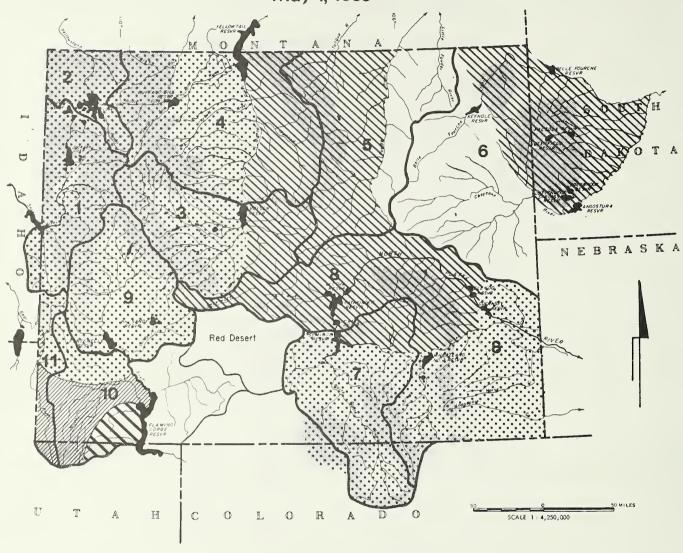
Prepared by

Jon G. Werner Water Supply Specialist Soil Conservation Service Room 3124, 100 East B Street Casper, Wyoming 82601

STREAMFLOW PROSPECTS FOR WYOMING

Spring and Summer Period

May 1, 1985



LEGEND

- 1. Snake River Basin >130% Much Above Average 2. Upper Yellowstone and Madison River Basins 3. Wind River Basin 110%-130% Above Average 4. Bighorn River Basin 5. Powder and Tongue River Basins 90%-110% Near Average 6. Belle Fourche and Cheyenne River Basins 7. Upper North Platte and Little Snake River 70%-90% Below Average 8. Lower North Platte, Sweetwater, and Laramie < 70% Much Below Average River Basins 9. Upper Green River Basin Not Forecast 10. Lower Green River Basin
- 11. Upper Bear River Basin

GENERAL OUTLOOK

AN EARLY SEASON OUTLOOK FOR ABUNDANT STREAMFLOW THIS SUMMER HAS WITHERED IN THE DRY TREND OF LATE WINTER AND HEAT OF EARLY SPRING. ONLY UNSEASONABLY HEAVY RAINFALLS CAN OVERCOME PRESENT DRYNESS.

SNOWPACK:

Only the North Platte drainage has escaped significant loss during April, finishing at 19 percent below average on May 1. The Powder River Basin is hardest hit with hot droughty weather slashing the April 1 snow at 27 percent below to a current 62 percent below normal. Other watersheds slipped by about 10 percent, leaving snowpacks of 19 to 38 percent below average. Only remnants of snowpacks remain below 9,000 feet elevation in the Wind and Big Horn Mountains.

PRECIPITATION:

April precipitation was greater than 50 percent below normal in many areas to near normal in extreme northwestern and southeastern Wyoming. A very dry area occurred from the Big Horn Mountains through the Wind River range. Less than 0.1 inch was received at Cody and Dubois and also at a few locations in the Green and Upper North Platte drainages. These amounts were greater than 90 percent below normal.

April recordings caused seasonal comparisons to continue to plunge. These statistics followed the April trend. The Big Horn and Wind drainages were very dry (25 to 75 percent below normal). The Yellowstone, Snake, Niobrara, and Lower North Platte were from 25 percent below to near normal. Elsewhere, comparisons range 25 to 50 percent below normal.

RESERVOIR STORAGE:

Abundant supplies are common in most of Wyoming's reservoirs, assuring ample supply for their uses this season. Seminoe is highest with over twice usual May 1 volume. Jackson Lake is very low during reconstruction work, and Fontenelle levels are being lowered in view of safety concerns.

STREAMFLOW FORECASTS:

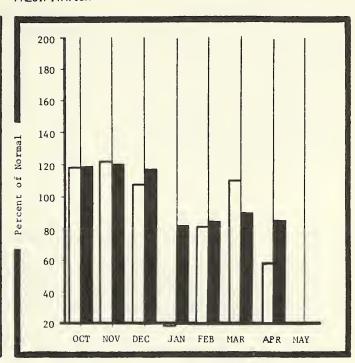
The unusual winter dryness and early spring high temperatures have not only produced poor snowpacks, but are resulting in runoff peaking 2 to 4 weeks earlier than usual. Early summer streamflows for direct diversion may be very short as a result. April streamflows on the Upper Green have been three times normal, for example. With the exception of southwestern Wyoming, forecasts have remained stable or decreased as much as 30 percent compared to average of one month ago. Thirty percent below average forecasts cover the Big Horn Basin, while the North Platte continues at 10 to 14 percent below normal.



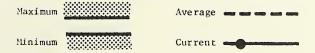
SNAKE RIVER BASIN

MOUNTAIN SNOWPACK* 28 24 20 16 10 JAN FEB MAR APR MAY





*Based on selected stations



*Based on selected stations

Monthly precipitation Year to date precipitation

WATER SUPPLY OUTLOOK:

Streamflow prospects have again diminished with another month of dry and hot weather precluding normal snowpacks. The 15 to 21 percent below normal forecasts can be improved by only very heavy spring rainfalls.

Jackson Lake is quite low during reconstruction, but Grassy and Palisades are well above usual.

SNAKE RIVER BASIN

STREAMFLOW FORECASTS

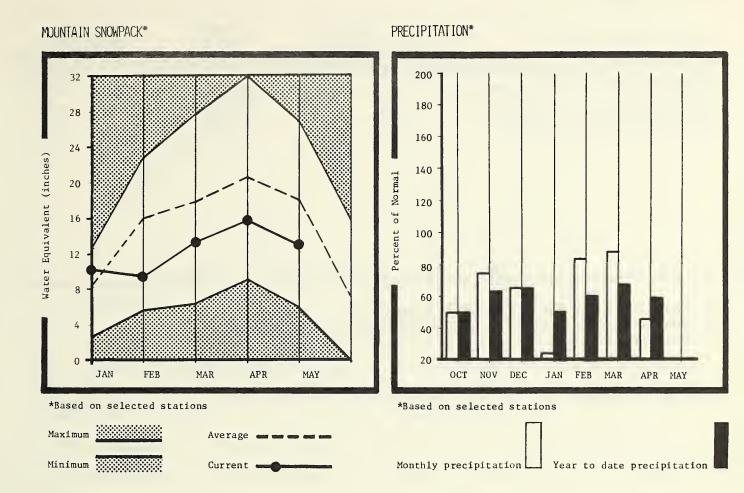
	STREAMFLOW FORECAST POINT	1	THIS Fore	ca		_	Forecast	_	PAST REC 1,000 Acre sst Yr.**I	-Feet	
1 1 1	SNAKE RIVER near Moran (1)	1 1 1 1	750 2,260 2,940 139 300 310 3,150	1 1 1 1 1 1	85 83 79 80 76 79 83	+ + +	April-Sept. April-Sept. May-Sept. April-Sept. April-Sept. April-Sept. April-Sept.	1 1 1 1	1 1 1	880 2,730 3,720 174 393 394 3,793	
1	SWIFT CREEK near Afton	-	37.0	1 1 1 1 1 ==	80		May-Sept.	 	 	46+0	111111

- (1) Observed flow plus change in storage in Jasckson Lake.
- (2) Observed flow plus change in storage in Jasckson Lake and Palisades Reservoir.
- ** Measured flows for last year are U.S.G.S. provisional figures, subject to revision.
- + Period of average 1961-1980.

SUMMARY of SNOW MEASUREMENTS

l River Basin l and/or l Sub-Watershed	15	Srio!	∦l Wa	ter	85	Snow Pet d vera	<u>of</u> 1		Reservoir		l <u>Usab)</u> yl This l l Year l	Last I	1
Snake abv. Jackson Lake Pacific Creek		_		92 Mea	-	81 ement		1	Grassy Lake	15.	11 13.61	14.41	11.01
Gros Ventre	1	3		68	1	63	1	1	Jackson Lake	1 624.	41 75.01	498.51	517.61
Hoback River Greys River	1	6 2	1	78 66	1	71 64	1	1	Palisades	1 1,200.	 	657.21	718.5I
Salt River	1	4	İ	24	Ì	31	i	İ		1	1 1	1	1
5 Snake River above Palisades	1	15	1	71	1	68	1	1		1	1 1	! !	1
	i		i		i		i	i		i	1 1	i	i
	1	:==:	ا ====	====	 ===:	====	 ===	1		 :======	 	ا =======	ا ا=====ا

UPPER YELLOWSTONE AND MADISON RIVER BASINS



WATER SUPPLY OUTLOOK:

Snowpacks have diminished to 34 percent below usual. The resulting streamflows are to be about 20 percent below normal.

YELLOWSTONE-MADISON RIVER BASIN

STREAMFLOW FORECASTS

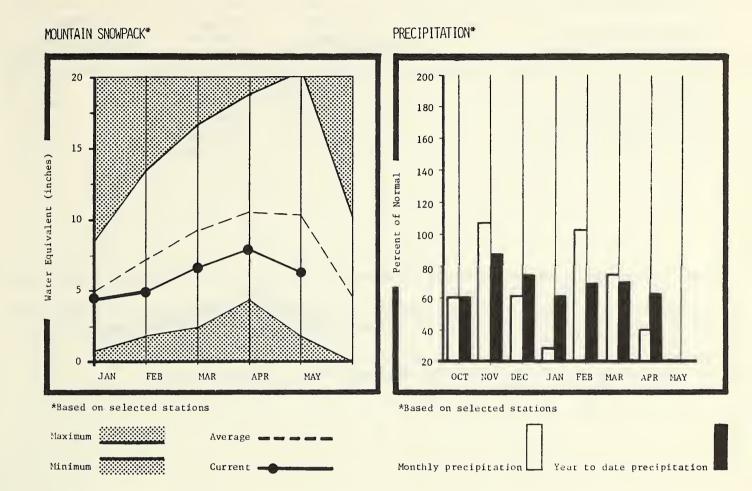
I I STREAMFLOW FORECAST POINT		PAST RECORD 1,000 Acre-Feet
YELLOWSTONE RIVER at Yellowstone Lake Outlet YELLOWSTONE RIVER at Corwin Springs, MT YELLOWSTONE RIVER near Livingston, MT MADISON RIVER near Grayling, MT (1) I	1,600 82 May-Sept. 1,800 79 May-Sept.	

- (1) Observed flow plus chamge in storage in Hebgen Lake.
- ** Measured flows for last year are U.S.G.S. provisional figures, subject to revision.
- + Period of average 1961-1980.

SUMMARY of SNOW MEASUREMENTS

River Basin and/or Sub-Watershed	No∙ This \ Snow <u>Water a</u> Site Last Yr	s Pct of	Reservoir	Capacity	<u>Usable Storage</u> This Last Year Year Ave
Madison (in Wyoming) Yellowstone	12 91 1 86 	1 77 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	- No Reservoirs -		

WIND RIVER BASIN



WATER SUPPLY OUTLOOK:

A very dry month has reduced snowpacks to one-half of usual. Forecasts of runoff continue, however, at about 25 percent below normal. Reservoir storage is very good.

WIND RIVER BASIN

STREAMFLOW FORECASTS

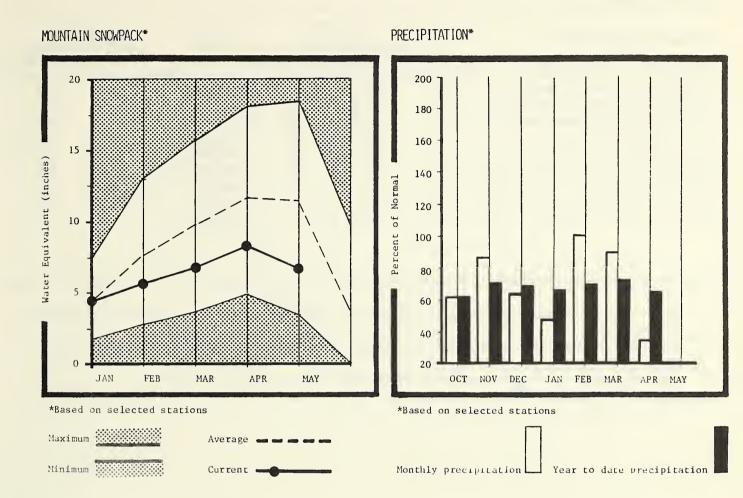
 STREAMFLOW FORECAST POINT	00 10° 000 000 000 0		Fore	l Pct. Ave.	Streamflow Forecast Period	1,000 Acr	e-Feet Average +1
WIND RIVER near Dubois		1 1 5 1 8 1 1	85.0 00 90		April-Sept. April-Sept. April-Sept. April-Sept. April-Sept.	1 1 1 1 1 1	106 678 1,163 188 53.0

- (1) Observed flow plus change in storage in Bull Lake, Pilot Butte Reservoir and diversion to Wyoming canal.
- (2) Observed flow plus change in storage in Bull Lake, Pilot Butte Reservoir, and Boysen Reservoir; plus diversion to Myoming canal.
- (3) Observed flow plus change in storage in Bull Lake.
- ** Measured flows for last year are U.S.G.S. provisional figures, subject to revision.
- + Feriod of average 1961-1980.

SUMMARY of SNOW MEASUREMENTS

River Basin and/or Sub-Watershed	No. This Yr. Snow Snow <u>Water as Pct of</u> Site Last Yr Average	l Reservoir I	Usable <u>Usable Storage</u>
Upper Wind River	1 9 1 58 1 50 1	i Bull Lake	151.8 87.0 101.1 79.8
l Pogo Agie	1 3 1 41 1 57 1	Filot Butte	1 31.61 22.01 28.71 26.71
Wind River above Boysen	1 16 48 51	l Boysen	1 549.91 291.01 299.51 250.11
1	1 1 1	T.	1 1 1 1
=======================================		=======================================	

BIGHORN RIVER BASIN



WATER SUPPLY OUTLOOK:

Twenty-five to thirty-five percent below normal streamflows are expected in this very dry basin, based upon the poor snowpacks which are only one-half of usual for May 1. Abundant reservoir stored water will be available for this season's use.

BIGHORN RIVER BASIN

STREAMFLOW FORECASTS

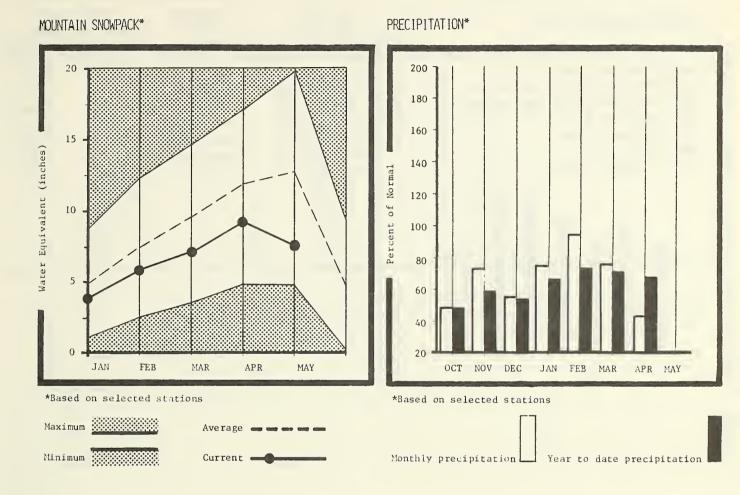
 STREAMFLOW FORECAST POINT	 	Fore	cast I Pct.	Ave.	-	Streamflow Forecast Period	1,000 Last Yr.	Acr	e-Feet Average	1 1 + 1
WIND RIVER below Boysen Reservoir (1) TENSLEEP CREEK near Tensleep MEDICINE LODGE CREEK near Hyattville SHELL CREEK near Shell GREYBULL RIVER at Meeteetse SHOSHONE RIVER below Buffalo Bill Dam (2) CLARK FORK near Belfry SOUTH FORK SHOSHONE RIVER near Valley NOWOOD RIVER near Tensleep	890 52.1 13.5 53.9 150 600 455 200 49.0	1 1 1 1 1 1 1 1 1	77 65e 66e 69 70 71	1 6 6 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1	April-Sept. April-Sept. April-Sept. April-Sept. April-Sept. April-Sept. April-Sept. May-Sept. April-Sept. March-Sept.	1 1 1 1	1	1,163 (Disc.) (Disc.) 78.0 215 845 606 278 71*	

- (1) Observed flow plus change in storage in Bull Lake, Pilot Butte, and Boysen Reservoir; plus diversion to Wyoming Canal.
- (2) Observed flow plus change in storage in Buffalo Bill Reservoir and diversion to Hart Mountain Canal.
- x Less than 20 year average.
- ** Measured flows for last year are U.S.G.S. provisional figures, subject to revision.
- + Period of average 1961-1980.

SUMMARY of SNOW MEASUREMENTS

River Basin and/or Sub-Watershed	ISn	อพไฟู	This ater ast Y	as F	ct c	of I	l Reservoir 	Usable Capacity 	This I		1
======================================							=======================================				
Clark Fork	1 13	7	64	١	61	1	l Boysen	1 549.9	291.01	299.51	250.11
I Shoshone	1 .	-	No	Sno) W	1	1	1	1	1	1
l Nowood	1 !	5 1	55	1	50	-	l Buffalo Bill	I 373.1	213.01	237.31	133.21
Shell	1 4	4 1	62	1	66	-	1	1	1	1	1
Greybull	1 .	-	No	Sno) W	1	l Bighorn Lake	1 1,356.0	851.81	849.21	633.11
Bighorn Basin(Boysen-Bighorn) 20)	49	1	49	1	1	1	1	1	1
1	1	- 1		1		1	1	1	1	1	1
1	1	1		1		1		1	1	{	1
1	1	- 1		1		1		1	1	1	1
1	1	1		1		1			1	1	1
======================================	====	-===	=====	====	-===	==	=======================================		======	======	======

POWDER AND TONGUE RIVER BASINS



WATER SUPPLY OUTLOOK:

Little precipitation and hot weather have seriously eroded the mountain snowpack of water reserve (now at 62 percent below normal). Streamflows will likewise be reduced 30 to 40 percent below normal and will peak much earlier in the irrigation season.

POWDER AND TONGUE RIVER BASIN

STREAMFLOW FORECASTS

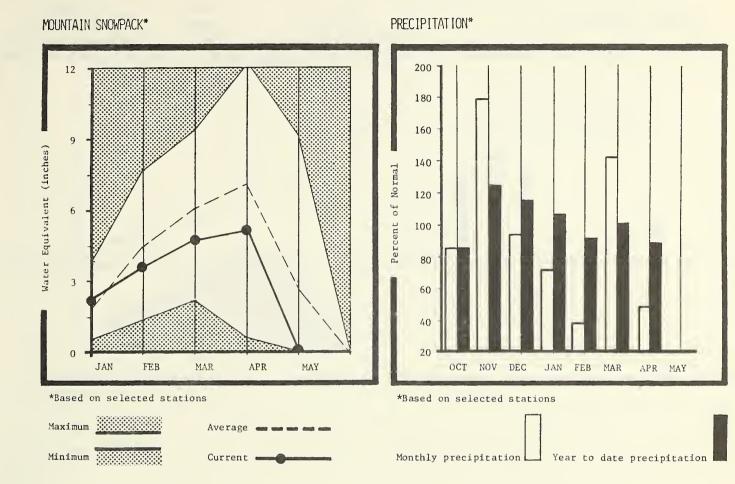
STREAMFLOW FORECAST POINT		Ac-Ft.1 Pct. Av	Forecast Period	i PAST RE i <u>1,000 Acr</u> Last Yr.**	e-Feet Average +1
TONGUE RIVER near Dayton (1)	 	88.0 72 14.0 65 7.0 66 25.0 63 16.9 66 35.5 65 94.3 60	April-Sept. April-Sept. April-Sept. April-Sept. April-Sept. April-Sept. April-Sept. April-Sept.		123 21.6 10.6 40.0 25.4 54.8 182

- (1) Observed flow plus diversion to Highline Ditch.
- ** Measured flows for last year are U.S.G.S. provisional figures, subject to revision.
- + Period of average 1961-1980.

SUMMARY of SNOW MEASUREMENTS

River Basin I and/or I Sub-Watershed	No. This Yr. Snow Snow <u>Water as Pct of</u> Site Last Yr Average	Reservoir 	Usable <u>Usable Storage</u>
Tongue River Goose Creek Clear Creek Crazy Woman Creek Powder River Basin 	13 54 66 4 54 66	 - No Reservoirs - 	
======================================			

BELLE FOURCHE AND CHEYENNE RIVER BASINS



WATER SUPPLY OUTLOOK:

Droughty trend of north and eastern Wyoming continues projecting early and reduced streamflows. Reservoir water users will have a good supply, however, this season.

BELLE FOURCHE & CHEYENNE RIVER WATERSHED

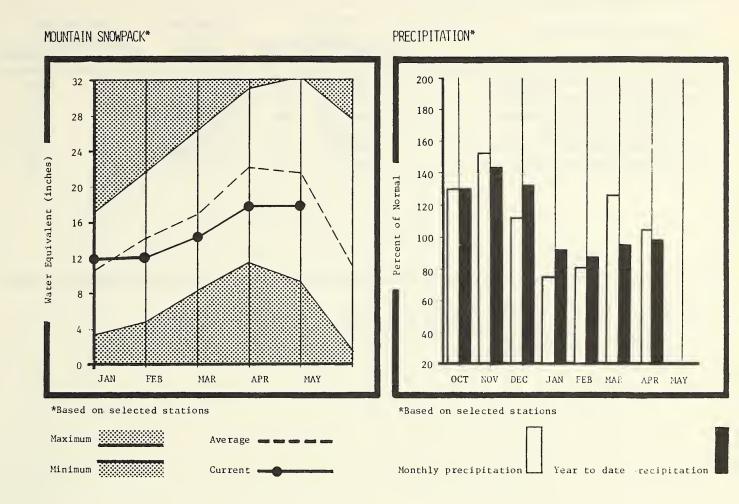
STREAMFLOW FORECASTS

I O I STREAMFLOW FORECAST POINT	Forecast 11,000 Ac-Ft. Pct. Ave.	l Period	i PAST RECORD 1,000 Acre-Feet Last Yr.** Average +
- No forecasts issued in this area -	i i i i	1 1	
† †	1 1	i i	
1		1	
 		 	1 1 1 1 1 1 1

SUMMARY of SNOW MEASUREMENTS

I River Basin I and/or I Sub-Watershed	ISr ISi	tella	This Yr∙ Sno ater as Pct ast Yr∣Avera	of I ige I	1	Reservoir	i Ca		This I Year I	Last I Year I	Ave. I
=====================================		- !	No Snow		1	Keyhole	!	190.41	74.51	59.11	129.31
İ	1	1	1	1	1	Belle Fourche	i	185.21	168.41	152.31	157.21
1	1	1	1	i	- 1	Angostura	i	86.21	63.01	81.91	77.01
1	1	1	1	1	1	Deerfield	ł	15.11	15.01	11.51	14.71
İ	1	- 1	1	1	1	Pactola	i	55.01	55.01	54.61	52.21
İ	1	1	i	1	1	Shadehill	ł	81.51	78.01	63.51	66.81
1	1	1	1	1	- 1		i	1	1	1	1
1	1	1	i	i	١		1	1	1	1	i
1	1	- 1	i	1	1		1	1	1	i	1
1	i	1	i	1	- 1		1	1	1	i	L
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UPPER NORTH PLATTE AND LITTLE SNAKE RIVER BASINS



WATER SUPPLY OUTLOOK:

Snowpack comparisons remained with little change during April. The 14 percent below normal condition predicts streamflows in the 8 to 16 percent below normal. Reservoirs' storage is in excellent supply.

UPPER NORTH PLATTE RIVER AND LITTLE SNAKE RIVER BASINS

STREAMFLOW FORECASTS

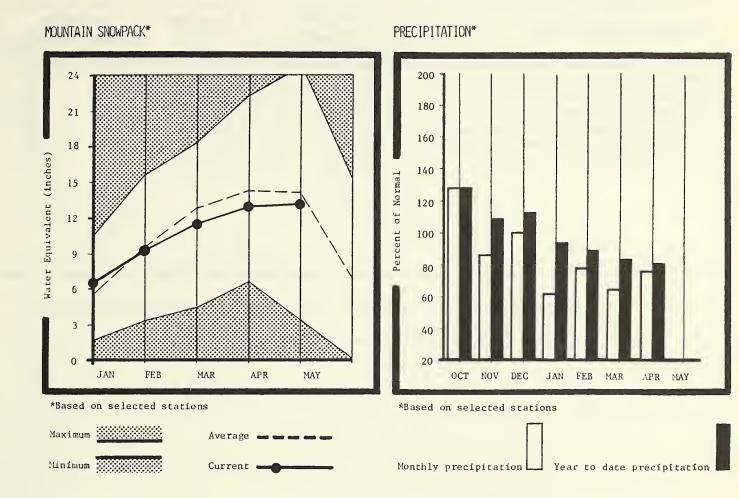
 STREAMFLOW FORECAST POINT 		I Fo	t. Pct. Ave.		PAST RE 1,000 Acr Last Yr.**	e-Feet Average +1
NORTH PLATTE RIVER near Northgate NORTH PLATTE RIVER near Sinclair ENCAMPMENT RIVER near Encampment ROCK CREEK near Arlington LITTLE SNAKE RIVER near Dixon (1) LITTLE SNAKE RIVER near Slater, CO (1)	+ + + + + + + + + + + + + + + + + + + +	1 853 1 140 1 46.5 1 295	1 86 1 82 1 90	April-Sept. April-Sept. April-Sept. April-Sept. April-Sept. April-Sept.		262 710 156 57.6 320 158

- (1) Observed flow plus transbasin diversion.
- ** Measured flows for last year are U.S.G.S. provisional figures, subject to revision.
- + Period of average 1961-1980.

SUMMARY of SNOW MEASUREMENTS

River Basin and/or Sub-Watershed	lNo. This Snow <u>Water</u> Site Last Y	as Pct of	Reservoir 	Usable <u>Usable Storage</u>
Upper North Platte Encampment Brush Creek Medicine Bow & Rock Creeks North Platte abv. Seminoe Little Snake River	14 67 3 69 3 65 3 79 21 67 8 69e 	1 90 I 1 94 I 1 88 I 1 85 I	Seminoe	1,017.3 842.0 635.8 358.2

LOWER NORTH PLATTE, SWEETWATER, AND LARAMIE RIVER BASINS



WATER SUPPLY OUTLOOK:

Water supplies on the Laramie River are reduced from one month ago by about 10 percent, except for the Laramie still holding at 17 percent below normal. Runoff is early in the Laramie Range and snowpacks are less than one-half of usual. Reservoir storage amounts continue very good.

LOWER NORTH PLATTE RIVER WATERSHED

STREAMFLOW FORECASTS

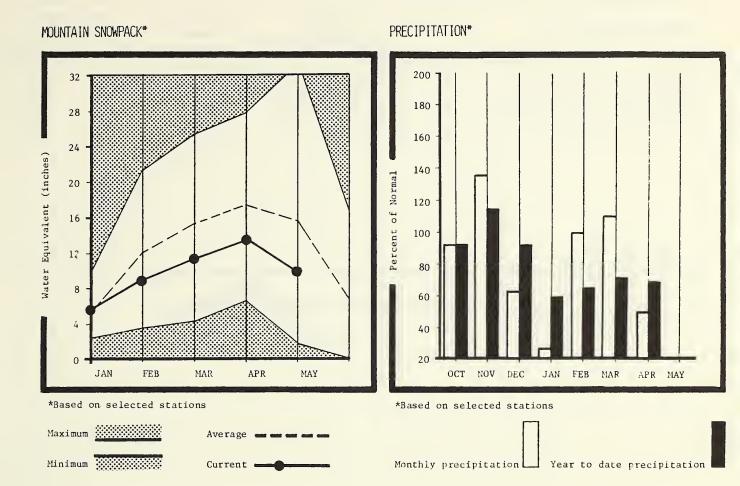
STREAMFLOW FORECAST POINT	1 1,000	Fore	YEAR cast Pct. Ave.	Ĺ	Forecast		1,000 Acr	
NORTH PLATTE RIVER near Sinclair SWEETWATER RIVER near Alcova DEER CREEK at Glenrock Laprele Creek above Reservoir near Douglas . LARAMIE RIVER & PIONEER CANAL near Moods LITTLE LARAMIE RIVER near Filmore	1	853 33.2 30.0 19.5 110 50.0	45 68 69	1 1	April-Sept. April-Sept. March-July. April-July. April-Sept. April-Sept.	1		710 73.7 43.9 28.2 132 65.1

- (1) Observed flow plus transbasin diversions from North Platte River Basin to Cache La Poudre River Basin in Colorado.
- ** Measured flows for last year are U.S.G.S. provisional figures, subject to revision.
- + Period of average 1961-1980.

SUMMARY of SNOW MEASUREMENTS

River Basin and/or Sub-Watershed	18	noi	w i <u>H</u>	ater	85	Snow Pct o verag	fl	1	Reservoir	1	·	This I Year I	Last I Year I	Ave. I
Sweetwater	 	3	1	38	ı	40		Ī	Seminoe	١	1,017.31	842.01	635.81	358.21
l Deer & LaPrele Creeks	-	2	1	27	- 1	41	- 1	1	Pathfinder		1,015.51	875.01	900.21	587.71
N. Platte abv. Laramie River	- 1	15	1	66	- 1	83	- 1		Alcova	١	30.71	28.01	11.41	24.91
l Little Laramie River	-1	4	1	51	- 1	65	1	1	Glendo	1	783.71	475.01	428.11	465.91
l Upper Laramie River	-1	8	1	66	- 1	89	-1	1	Guernsey	١	45.21	31.01	30.61	34.51
l Laramie River Total	1	16	1	56	- 1	78	- 1	1	Wheatland #2	1	98.91	86.01	70.61	55.91
I N. Platte River in Myoming	1	57	1	63	- 1	81	- 1	- 1	PROJECT WATER	١		1	1	1
1	1		1		- 1		- 1	1	North Platte Project	1	1,016.11	1092-01	1025.01	
1	-		1		- 1		-1	- 1	Kendrick Project	١	1,201.61	1053.01	1019.31	1
l .	1		1		1		1	- 1	Glendo Project Users	١	454.31	155.01	9.21	1
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UPPER GREEN RIVER BASIN



WATER SUPPLY OUTLOOK:

Snowpacks averaging 37 percent below normal are supporting streamflow forecasts at about 20 percent below normal. Reservoir storage is excellent at Big Sandy, but Fontenelle is being lowered as a safety precaution.

UPPER GREEN RIVER BASIN

STREAMFLOW FORECASTS

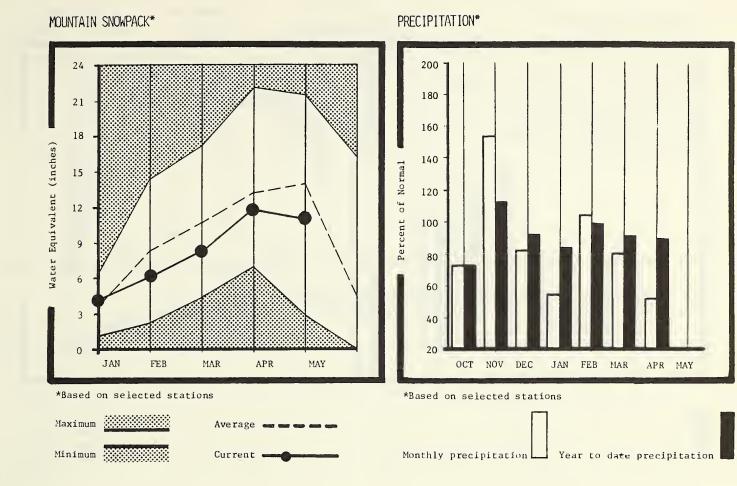
 STREAMFLOW FORECAST POINT	1	THIS YEAR Forecast c-Ft.1 Fct.		Forecast	PAST RE <u>1,000 Acr</u> Last Yr.**	e-Feet I
GREEN RIVER at Warren Bridge	1 75	0 I 7.2 I	86 1 81 1	April-Sept. April-July April-Sept. April-Sept.		326 869 8.9 61.1
	 	; ! ! !	i i !		 	'

Measured flows for last year are U.S.G.S. provisional figures, subject to revision.
 Period of average 1961-1980.

SUMMARY of SNOW MEASUREMENTS

River Basin and/or Sub-Watershed	No. Snow Site	Water	as F	et of	1 1	Reservoir	Capacity	Usable Storage This Last Year Year Ave.
I Green River abv Warren Bridg	el 4 l	65	1	55	 	Eden	1 11.81	11.7 4.5
Upper Green (West Side)	1 6 1	75	1	72		Big Sandy	38.31	31.01 25.01 23.91
1 New Fork	1 3 1	60	1	52	1 1	Fontenelle	344.81	145.0 161.0 161.5
Big Sandy	1 2 1	66	1	65				
Green River above Fontenelle	1 11	70	1	63	1 1			1 1 1
======================================		=====	 ====	=====	 = =:			=======================================

LOWER GREEN RIVER BASIN



WATER SUPPLY OUTLOOK:

The state's best prospects for summer streamflow exist here at 9 to 40 percent above normal. The heavy snows of the Uinta Range have persisted through the winter at above to now near normal conditions.

LOWER GREEN RIVER BASIN

STREAMFLOW FORECASTS

 STREAMFLOW FORECAST POINT	1 1,0	THIS YEAR Forecast 000 Ac-Ft. Pct. Ave.	_I Forecast	FAST RE <u>1,000 Acr</u> Last Yr.**	e-Feet 1
FONTENELLE Reservoir Inflow	1	750 86 56.0 78 809 75 95.0 109 60.0 140 1,100 88 	April-July April-Sept. April-Sept. May-July May-July April-July 		869 71.3 1,079 87 43 1,248

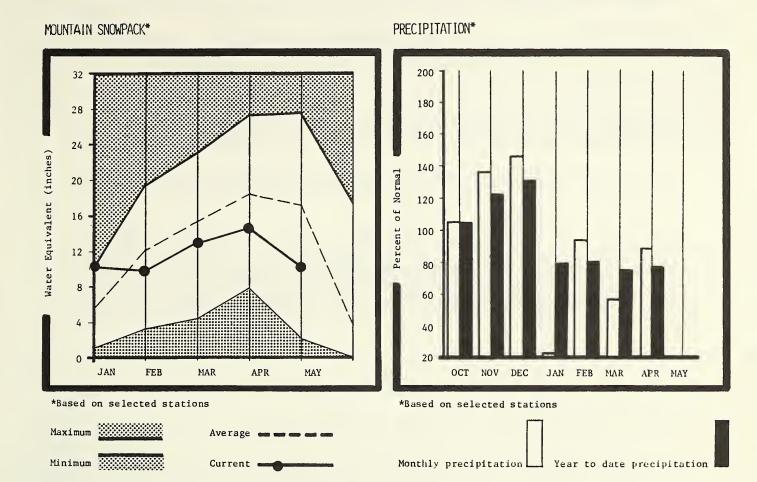
- (1) Observed flow plus change in storage in Fontenelle Reservoir.

 *** Measured flows for last year are U.S.G.S. provisional figures, subject to revision.
- + Feriod of average 1961-1980.

SUMMARY of SNOW MEASUREMENTS

River Basin and/or Sub-Watershed	No. Snow Site	Water	as	Pet c	<u>†</u> 1	l Reservoir l	Capacity	l <u>Usable Sto</u> I This I Last I Year I Year	1 1
I Hams Fork	1 3 1	72	1	71	1	Flaming Gorge	1 3,749.0	3109.013067.	01 1
Blacks Fork	1 4 1	55	1	72	1	Viva Naughton	36.0	- 1 8.	5 26.2
l Henry's Fork	1 1 1	104	1	226	1	i	1		1 1
Green River above Flaming G.	1 14 1	71	1	66	1	1	1		
1 1	1 1		1		1	1	1		
======================================		=====	===	=====	==			:========	======1

UPPER BEAR RIVER BASIN



WATER SUPPLY OUTLOOK:

Bear River flow volumes promise to be a little above normal, providing good supply to water users. The Smith's and Thomas Fork, however, continue at about 25 percent below normal expected flows.

BEAR RIVER BASIN

STREAMFLOW FORECASTS

 STREAMFLOW FORECAST FOINT 			 	For	eca	 1	Period	I_ IL:	PAST RE 1,000 Acr sst Yr.**I	e-Feet Average	1 + 1
SMITHS FORK near Border THOMAS FORK near State Line BEAR RIVER at Utah-Wyoming State Line BEAR RIVER near Woodruff BEAR RIVER near Randolph	•	• •	 	93 26.0 110 118 86	1		April-Sept. April-Sept. May-July May-July May-July		 	119 35.1 105 116 82	

- ** Measured flows for last year are U.S.G.S. provisional figures, subject to revision.
- + Feriod of average 1961-1980.

SUMMARY of SNOW MEASUREMENTS

River Basin and/or Sub-Watershed	No. This Yr. Sno Snow <u>Water as Pct</u> Site Last Yr Avera	<u>of</u>	Usable <u>Usable Storage</u> Capacity This Last Year Year Ave.
Upper Bear River	I 3 I 41 I 51	I I Woodruff Narrows	55.8 55.8 35.0
Smith & Thomas Forks	1 4 1 54 1 60		
Bear River Total	1 10 1 57 1 62	1 1	
	1 1 1	1 1	
1	1 1 1		
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AVERAGE	961-80	35.4	1	3.2	8:11	9.6	17.9	1	:	17.5	ŀ	:	18.5	: :	6.6	1 6) ·	1	12.6	44.1	1 :	10.3	101	17.3	+	1 ;	 	?	13.6	6.5	15.4	78.4	4.1	11.1	/:/	24.0	28.2	15.3	39.5	: 1	11.6	10.3	6.9		32.0	1	13.8	3.4	13.1
LAST A		33.6	33.3	0.9	17.0	14.0	22.0	10.4	41.9	20.6	18.0	30.6	20.8	21.3	7.9	11.9	• •	15.9	12.2	36.4	30.0	14.6	2	12.9	15.5	25.1	: 1	16.9	12.2	15.2	18.7	31.0	5.5	7.4	2.5	30.3	41.1	19.4	47.1	47.5	9.2	φ <u>.</u>	10.7	20.0	26.8	29.8	13.6	16.3	9,3
HATER	DNTENT	26.7	27.9	٠ ٠	7.8.1		12.4	0.	30.8	12.3	15.2	6.22	13.7	8.6	9.6	0.6	• •	2.7	•	37.6	28.7	υ ¢	2 10	10.5	7.6	10.0	5.6	2 49	7.7	•	4.6	74.0	0	4.9	2,5	21.5	30.2	10.0	36.1	33.7	10.2	ທ໌.	9.0	9	27.0	23.5	9.0	3.5	5.2
HONS	- 1	en en	:	ا ٥	67	٠.	38.	1	73	36			40	²	14	¦	> 0	i	0	73	;	8 6	3	58	;	'	co <	' ¦	30	0	04	- 25	, 0	14	٠ ٢	61	}	34	85	; ;	97	25	י מ		72		31	7 0	18
OATE		5/01/85	5/01/85	4/30/85	4/30/83	4/29/85	4/25/85	5/01/85	4/30/B5	4/30/85	5/01/85	5/01/85	4/26/85	5/01/85	4/22/85	5/01/85	4/30/85	4/30/85	4/30/85	5/01/85	5/01/85	4/25/85	5/01/85	4/29/85	5/01/85	5/01/85	5/02/85	5/01/85	4/22/85	5/02/85	4/28/85	4/77/85	4/23/85	4/29/85	4/30/85	4/25/85	4/30/85	4/30/85	4/25/85	4/30/82	5/01/85	4/23/85	50/10/5	5/01/85	4/29/85	5/01/85	4/26/85	4/29/85	4/30/85
ELEVATION		·	7270							10100	10100	9430			7740	9550	06//	8380	9020	7850	7850	8750	0794	8240	8240	8080				7420	7760	9880	7820	8340	7500	9430	10130	B450	. 0266	9920	7400	8780	0868	9400	8200	8200	9350	8360	9480
SNOW COURSE EL		GRASSY L'AKF	GRASSY LAKE SNOTEL	GREYS BOUNDARY	GRUS VENIKE SURALI	CROUSE PARK ATUTOR	HATRPIN TURN	HANSEN S.M. SNOTEL	HASKINS CREEK	HOBES PARK	HOEBS PARK SNOTEL	INDIAN CREEK SNOTEL	IRISH KUCK SNUTEL	KELLEY R.S. SNOTEL	KENDALL R.S.	KIRWIN SNOTEL	LA BUNTE	LAKE CARP	LARSEN CREEK	LEWIS LAKE DIVIDE	LEWIS LAKE SNOTEL	LIBBY LOGGE	LITTLE WHAN	LOOMIS PARK	LOOMIS PARK SNOTEL	LOST CREEK SNOTEL	LUPINE CREEK	MARQUETTE CREEK SNIL	HEDICINE LONGE LAKES	MIDDLE FORK	MIDOLE POWOER	MINOLE FUNDER SNUTEL	MUDOY CREEK G.S.	NEW FORK LAKE	NORRIS BASIN (OLO)	NORTH BARRETT CREEK	N.FRENCH CRK SNOTEL	NORTH TONGUE	DLO BATTLE	OLO BATTLE SNOTEL		ONION GULCH	OWL CREEK	PARKERS PEAK SNOTE!	PHILLIPS BENCH	PHILLIPS BENCH SNTL	POCKET CREEK	POLE MOUNTAIN	POWDER RIVER PASS
AVERAGE	1961-80	d	13.9	29.4	!	1	1 1	7.0	: 1	8.6	21.9	14.6	1 ;	0.4		14.1	22.6	1 ;	7.7	4 77	2.7	11.7	6.6	14.7	1	1	4.00	19.4	18,8	1	4.2	0.6	15.7	:	1	1 %	46.8	13.8	1 0	/***	7.9	3.0	11.8	14.8	: :	1	5.8	20.7	16.1
LAST	YEAR	-	21.3	34.2	1 :	14.2	4 1 5 0	?	10.5	14.6	22.8	14.6	1 ;	4 °C	26.6	19.5	25.0	22.3	70.0	32.6	3,3	16.0	12.3	11.7	10.9	18.7	9.5	13.0	22.0	25.0	1.2	13.2	2	20.7	23.1		50.2	12.6	4.5 4.5	19.0	7.3	œ	9.1	13.0	30.4	2 1	10.5	1 3	18.3
WATER		c	7.6	18.7	15.7	۰,9	0,4	2 10	; •	4.7	15.8	9.5	5.1	1.4	20.1	7 , 7E	17.4	14.1	/* 0	24.3	•	0.0	9 9	8.1	33.8	11.6		5 .	14.8	4.7	•	0.0	10.0	12.3	4.4	11.4	41.0	8.2	• •		2.2	•	4.4	0 .	4.00	24.9	3.4	10.5	7 9 · 8
3		ć	25	28	1	;	O [14	:	19	46	52	¦ '	ים		1	28	'	۵ ن نا ۵	3	0	13	21	24	1	31	6	<u> </u>	42	1	0	10	36	-	<u> </u>	=	108	56	- W	3	7	0	15	27	۲ ۱ %	3	9	35	23°
MAY 1985 OATE SP		30/00/4	4/25/85	4/22/85	5/01/85	5/01/85	4/30/83 E/01/05	4/25/85	5/01/85	4/29/85	4/26/85	4/30/85	5/01/85	4/28/82	5/01/85	4/29/85	4/25/85	5/01/85	4/30/83	4/30/85	4/29/85	4/30/85	4/30/85	4/28/85	5/01/85	4/29/85	5/01/85	4/30/80	4/29/85	4/30/85	4/28/85	4/29/85	4/25/85	5/01/85	5/01/85	5/01/85	4/27/85	4/30/85	3/01/85	5/01/85	4/28/85	4/30/85	4/25/85	4/2//85	4/29/85	5/01/85	4/29/85	4/25/85	4/29/85
ELEVATION			9120		9380		7440	2004	7900	7760	8620	9080	0806	8370				9350						8750	8750		7940		7850	7850	8400	7000	9850	9850		0707		10160	00001	8880	8760	0969	7930	9400	9400	9200	0906	9400	0988
SNOW COURSE EL		HYOHING HATTON	AL BANY	BALD MOUNTAIN	BALD MOUNTAIN SNOTEL	BASE CAMP SNOTEL	BALILE MUUNIAIN	FAR TRAP	BEAR TRAP MOMS. SNTL	IG GOOSE	BIG PARK	SANDY	BIG SANDY OPEN.SNTL	BIG MARM SPRINGS	BLING BULL SNOTEL	BLUE RIDGE	BONE SPRINGS OIVIOE	BONE SPGS, DIV SNTL	BUXELUER	BROOKLYN LK. SNOTEL	BRYAN FLAT	BUCK CREEK	BURGESS RANGER STA	BURGESS JOI: SMUTEL BURROUGHS CREEK	EURROUGHS CRK SNOTEL			CANTUN (ULSC.)	CASPER MOUNTAIN	CASPER MTN. SNOTEL	CASTLE CREEK	CCC CAMP	CLOUD PEAK AM	SNOTEL	COTTONHOOD LK SNOTEL	COULIER CREEK SNUIEL	DEEP LAKE	DINNOOOY	DOME LAKE	DOME LAKE SNOTEL	OU NOIR	EAST ENTRANCE	EAST RIM OIVIDE	PARK	ELKHAKI FAKK SNUIEL	EVENING STAR SNOTEL		GENEVA PASS AM	GRANNIER MEADOWS

YOUNTS PEAK	WOLVERINE SNOTEL	WINDY PEAK SADTE	S	CREEK	MERCHER SPRING S		NPEAK	LL RANGER S	CEAN SI	CRE I	FAKS	TOWNSEND THE SANT	FASS	EE PASS	R CREEK	77.0	THORAGE SANGUE	n r	OCKER CREEK	KER CREEK	. LAWRENCE	LAMRENCE	ST. LAMBERCE R.S.	SPRING ORK, SNOTE	PASS	1100	SOUR DOUGH	SOLDIER DOOR	NIS	EASIN	ۍ د د د		01511 05557 02015		STONE	LAKE !	-	RIVER	7010 007X			ER CREEK	PURGATORY GULCH		SNOW COURSE
8440 AM 8350		7450 7450	L HY		SNOTE1 9250	E		۲Α. ٩	, ~-,	,	9500	2	SMOTEL 9580		7950	7740	7900				_	EL 895	5. 8960			SNTL	8460	8780	SNOTEL 8060		NEH 7750	7720	-	9260		_		IT 7700	8350	0866		m	8970		ELEVATION
4/29/85 4/30/85	/01/8	4/30/85	5/01/85	4/29/85	4/25/85	5/01/85	4/29/85	/25/8	5/01/85	/01/8	4/30/85	5/01/85	5/01/85	4/30/85	4/28/85	4/29/85	1/30/85	9/06/	5/01/85	4/30/85	5/01/85	5/01/85	4/30/85	5/01/85	4/29/85	4/30/85	4/23/85	4/30/85	5/01/85	4/30/85	4/28/85	4/28/85	58/10/2	4/29/85	8	4/30/85	5/01/85	/29/8	4/25/85	4/26/65	4/30/85	/25/8	4/30/85		DATE
3 4	;	1.0	-	70	- 44	:	0	12	-	:	44		.	56	0	បា •	- <	> <	, ;	24		,	0		33	1	0 0	0 0	;	22	ω «	>		9 41	17	1	1	15	18	л ` • С	7 1		26	HTABO	HONS
10.0		4.0	-	0	77.7	•		ω	26.4	3.7	70.6	4 . OE	19.9			24.6		•	œ . ن	8.1		4.3		6.9E	Č1	9.7	•		6.9	8.1			1 F	12.2	٠	٠			ران 9 ا		•	3.2		CONTENT	WATER
14.8	6.1		2.	ů,	29.1	١,				Φ (25. 2	л	0	?	ω.	28.4			7	19.8	1		12.0		•	•	8.9	11.6	11.5	•		,	18.1		21.1	43.3	14.6			10.0		•	18.0	YEAR	LAST
13.7	1 0	11 -	}	1	20.7	3		9.2	1	1 1	77.4		1	33.8	4 3	28.4	2 0	- 1	1	16.2	1	1 4	ສ ພ	13.6	•	1	7.7	13.4	- 1	15.5	1 8	л	;	16./	: 1	1	1		9.2	21.6	3	9.7		1961-80	AVERAGE

	STILL WATER CAMP	STEEL CREEK PARK		MONTE CRISTO R.S.	HICKERSON PARK	HEWINTA G.S.	HAYDEN FORK	BURT'S-MILLER RANCH	8LACK'S FORK JUNCTN	BLACK'S FORK	UTAH		WHITE WILL	WEST YELL'ST BUTYL	HEST YELLOWSTONE	THENTY-ONE MILE	N.E. ENTRANCE BUTYL	NORTHEAST ENTRANCE	MADISON PLATEAU			STATI		BLACK BEAR	MONTANA	JACKPINE CREEK			TORRO CANYON	TELOM CHECK	KURCH CREEK PASS	TOREX	PARK CIER	RASEIT EARS	NORTHGATE	MCINTYRE	JOE WRIGHT	GRANO LAKE	ELK RIVER #2	DEADMAN HILL	COLUMBINE LOOGE	CHAMBERS LAKE	CAMERON PASS	COLORADO	SNOW COURSE	
9960	8550	10100	10300	8960	9100	9500	9400	7900		9200		8700	8700	6700	6700	7150	7350	7350	7750	9100	9100	8150	7950	7950		7350	8420	8000	8250	, 000	00%00	10000	0000	9550	8500	9100	10000	8600	8600	10200	9300	9000	10300		ELEVATION	
4/26/85	4/26/85	4/26/85	4/26/85	4/25/85	4/26/85	4/26/85	4/26/85	4/26/85	4/26/85	4/26/85		5/01/85	4/30/85	5/02/85	5/02/85	5/02/85	5/01/85	4/30/85	4/25/85	5/01/85	4/30/85	4/30/85	5/01/85	4/26/85		4/29/85	.4/29/85	5/01/85	4/29/85		4/23/85	4/30/05	4/23/85	22/05/83	4/23/85	4/28/85	4/30/85	4/25/85	4/25/85	5/01/85	4/26/85	4/30/85	4/30/85		DATE	
54	-							2	16	15	ì	1	5.	; ;	13	20	1	4	59	1	79	42	1	90		40	70	ì	52	;	36	127	120) \ 1 0	7 10	9.2	70	18	40	51	47	2	72		SNOW	
23.2	2.6	16.6	11.4	20.1	3.8	7.1	10.7		3./	.40		22.8	23.1	3,2	•			1.6	15.6	28.1	32.1	16.2	35.2	39.6		18.5	33,3	21.7E	21.8	:	11.0	20.7	٥ / ١	30.0	1 0		28.0	5.7	14.9	17.7E	20.1	.7	30.0		CONTENT	
31.7	10.6	22.5	18.2	29.8	13.3	13.6	18.2	. 44.3	11.8	20.8	2	21.9	24.3	3 0		17.9		4.1	21.8	31.4	34.4	16.6	36.9	40.4		23.2	43.4	21.8	28.1		18.8	200	77.0	10'10	37.0	14.7	30.8	9.9		22.6	26.6	9.2	34.4		LAST YEAR	
26.1			15.6				16.2			_		2/ - 1	31.0	7		17.2	. ω	7.3	23.6	40.7	44.5	22.2	38.8	44.8		21.7	38.8	25.4	23.2		11.7	20.4	P . 4.	7.7	70.0	•			16.7	18.0	21.6	6.8	32.1		AVERAGE 1961-80	

THE FOLLOWING ORGANIZATIONS COOPERATE WITH THE SOIL CONSERVATION SERVICE IN SNOW SURVEY WORK

State

Conservation Districts of Wyoming
State Engineer of Wyoming
Department of Water Resources of Nebraska
Irrigation Districts of Wyoming
University of Wyoming
Department of Atmospheric Resources
Department of Agricultural Engineering

Federal

- U.S. Department of Agriculture
 Soil Conservation Service
 Forest Service
- U.S. Department of Commerce
 NOAA, National Weather Service
- U.S. Department of Interior
 Bureau of Reclamation
 Geological Survey
 National Park Service
 Bureau of Indian Affairs
 Bureau of Land Management

Private

Utah Power and Light Company Eden Valley Irrigation District

Other organizations and individuals furnish information for the snow survey reports. Their cooperation is gratefully acknowledged.

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
100 East 'B' Street - Room 3124
Casper, WY 82601

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Wyoming Water Supply Outlook

and

Federal - State - Private Cooperative Snow Surveys



SOIL CONSERVATION SERVICE